

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (original): A bipolar junction transistor, comprising:

a buried collector layer;

a counterdoped collector region adjacent to said buried collector layer;

a base region adjacent to said counterdoped collector region; and

an emitter region adjacent to said base region.

Claim 2 (original): The bipolar junction transistor of claim 1 wherein at least one of the dopant species in said counterdoped collector region has a dopant concentration of greater than $0.5 \times 10^{17} \text{cm}^{-3}$.

Claim 3 (original): The bipolar junction transistor of claim 1 wherein the distance from the edge of said buried collector layer which is adjacent to said collector region to the edge of said base region which is adjacent to said collector region is less than 1500 angstroms.

Claim 4 (original): The bipolar junction transistor of claim 1 wherein the base region is silicon germanium.

Claim 5 (currently amended): A bipolar junction transistor, comprising:

a buried collector layer;

a counterdoped collector region adjacent to said buried collector layer wherein said collector region contains at least $0.5 \times 10^{17} \text{cm}^{-3}$ scattering centers;

a base region adjacent to said counterdoped collector region; and

an emitter region adjacent to said base region.

Claim 6 (original): The bipolar junction transistor of claim 5 wherein said scattering centers are a species selected from the group consisting of boron, aluminum, gallium, indium, carbon, phosphorous, arsenic and antimony.

Claim 7 (currently amended): The bipolar junction transistor of claim 5 wherein the distance from the edge of said buried collector layer which is adjacent to said counterdoped collector region to the edge of said base region which is adjacent to said collector region is less than 1500 angstroms.

Claim 8 (original): The bipolar junction transistor of claim 5 wherein the base region is silicon germanium.

Claim 9 (currently amended): The bipolar junction transistor of claim 5 wherein the scattering centers of said counterdoped collector region are neutral scattering centers.